

Objective

The proposed development at 21-35 Treacy Street has been reviewed against the Green Star Multi-Unit Residential (V1) Rating Tool to determine the initiatives required to achieve a Green Star Rating. A strategy has been devised to achieve a 4 Star Rating against the Green Star Scheme.

Green Star Strategy

A strategy required to achieve a 4 Star Green Star Rating or "Best Practice" is listed below. To achieve this rating a minimum of 45 credits is required to be achieved, plus a reasonable margin to allow for assessment by the GBCA as well as potential modifications during detailed design or construction.

a) Management

Building Commissioning and Tuning

Commission and tune all relevant building services at completion to ensure optimum efficiency and environmental benefits are achieved. Demonstrate reporting and handover.

Environment Management Plan (EMP)

Implement a comprehensive EMP for demolition and construction work.

Waste Management

The Contractor is to recycle 80% of all construction waste.

Metering

Provide sub-metering for all major energy and water uses and metering for individual dwellings with effective monitoring, including water, electricity, gas and hot water (if central system).

b) Indoor Environmental Quality

Volatiline Organic Compounds (VOCs and Formaldehydes)

Specify low VOC paints, flooring, sealants/adhesives and wall/ceiling coverings as well as low formaldehyde engineering and products.

Lighting Levels

Ensure that sufficient light levels (300 lux) are provided to kitchen sinks, cook tops and vanity basins.

Internal Noise Levels

Acoustic treatment to maintain low noise levels in habitable rooms with advice from a qualified acoustic engineer.

Natural Ventilation

At least 60% dual aspect, cross-ventilation apartments.

c) Energy

Basix Energy

Achieve 20% reduction on greenhouse gas emissions through efficient common area lighting and ventilation, high star rating appliances and fluorescent or LED apartment lighting and 4.5 EER zoned AC.

Good Passive Design

Low-e laminate glazing, shading and good insulation levels for all units.

Efficiency Controls for Occupied Areas

Provide shutdown switch for AC and lighting in unoccupied dwellings, motion sensors for common areas.

d) Transport

Fuel Efficient Vehicles

10% parking spaces provided for small/hybrid vehicles and 5% for mopeds/motorcycles.

Car Sharing Scheme

Implement a formal car sharing scheme with 5% of carpark parking spaces allocated to it.

Minimising Parking

Provide no greater than 10% above minimum car parking requirement for the site.

Trip Reduction

Ensure that there are at least 10 amenities within 400 metres walking distance of residents, which may include convenience store, ATMs, restaurants, supermarket, etc.

Cycle Facilities

Provide secure bicycle cages at a rate of 1 per unit and visitor bicycle racks at a rate of 1 per 4 units.

e) Water

Rainwater

Provide a rainwater harvesting system to supply toilet flushing and irrigation systems.
Achieve a 40% reduction on water usage.

Efficient Fittings and Fixtures

All taps, toilets and showers have a low water usage.

Cooling Systems

Air-cooled plant only.

Appliances

Install washing machines, clothes dryers and dishwashers within 1 star of the top energy-efficiency rating.

f) Materials

Waste Recycling Facilities

Provide accessible and adequately sized storage room for separation and storage of recyclables.
Provide compost facilities.

Recycled Concrete

Minimum 30% of cement is replaced with an industrial waste product, 20% of structural and 100% of non-structural aggregate is recycled.

Recycled Steel

At least 60% of steel comes from an accredited steel recycling supplier.

Timber

95% of timber is FSC certified or reused.

Joinery

Use 50% GECA certified joinery.

g) Emissions

Low Ozone Depletion Potential (ODP Refrigerants)

Specify refrigerants that have zero ODP.

Low ODP Insulation

Specify insulation products that have zone ODP in manufacture and composition.

External Light Pollution

No external lights have an upward light output ration of greater than 5%. All lights comply with AS 4282.

GREEN STAR POINTS (WEIGHTED) 48 POINTS

Conclusion

Based on the above strategy a 4 Star rating under the Green Star Scheme is achievable for the project.